

Can Satellites Tell Us Anything about Aerosol-Cloud Interactions?

Ralph Kahn, *NASA Goddard Space Flight Center, Greenbelt MD 20771*

e-mail: ralph.kahn@nasa.gov

Satellites are relatively blunt instruments for probing the subtle phenomena associated with aerosol-cloud interactions. The strength of most satellite instruments is frequent, global coverage at kilometer-scale resolution. Yet with some cleverness, we have learned a few things about aerosol-cloud interactions, at least to the extent of testing certain hypotheses on regional scales. Both modeling efforts and detailed suborbital measurements have been critical in establishing the context for the satellite observations. This presentation will review the main strengths and limitations of satellite contributions to aerosol-cloud-interaction studies, illustrated with representative examples from the published literature, and will include brief speculation on where the satellite component of the subject might be headed.

International Atmospheric Modeling Algorithm Conference, UCDavis, 12/2/2011